were collected during the latter part of August, and the adults emerged early in September.

Apanteles limenitidis, Riley, var.

On the under surface of the leaves infested by the *Hemaris* larvæ, there were frequently found solitary yellow cocoons, which were at once recognized as belonging to some of the *Microgasterinæ*. From numerous specimens collected there emerged early in September two specimens of an *Apanteles*, and ten specimens of a *Hemiteles*. The former approach nearly to *A. limenitides*, bred by Dr. Riley from *Limenitis disippus*, (Third Rept. St. Ent. Mo., p. 158), differing principally in the color of the posterior femora, which are reddish with black tips, while in typical *limenitidis* they are wholly black. The cocoons in shape, color and position are apparently similar in the two forms.

The secondary parasite is, as I have already stated, an apparently undescribed *Hemiteles*, but I prefer to wait until the genus can be more thoroughly worked up before speaking of it definitely.

A second paper by Mr. Weed on the Hymenopterous parasites of the strawberry leaf-roller *Phoxopteris comptana*, Fröl., was read by Mr. Howard.

On the Hymenopterous Parasites of the Strawberry Leaf-Roller PHOXOPTERIS COMPTANA, Fröl.

By Clarence M. Weed.

So far as I can learn the only positive record* of a parasite attacking the common strawberry leaf-roller (*Phoxopteris comptana*, Fröl.) to be found in American literature occurs on page 97 of the Report of the Michigan State Horticultural Society, where, in an article concerning this insect, Professor A. J. Cook writes:

"There is an Ichneumon fly that is very abundant in Michigan, which preys upon this leaf-roller. I think it is undescribed. It certainly is not referred to as a destroyer of the leaf-roller. I have not access to Cressons description of the genus *Eiphosoma*, but from the very short description, and figure, given by Packard, this species would seem to belong to that genus."

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* The only other mention of possible parasitism upon this species I have met with is by Professor S. A. Forbes, who writes: "* * * from a breeding cage containing larvæ of this and another leaf-roller (*Cacœcia obsoletana*) * * * I obtained last July specimens of a hymenopterous parasite belonging to the genus *Bracon*. Unfortunately, however, it is impossible to tell from which of these species this parasite was bred."—Thirteenth Rept. St. Ent. Ill., p. 92.

"This species is black, with legs, ventral surface of abdomen, ring about the eyes, and base of the wings yellow. The antennæ are 4 mm. long, the wings about 3 mm. The ovipositor is black and about as long as the wings. The thorax and abdomen are finely punctured."

In working over the *Ichneumonidæ* in the Laboratory collection I found many examples of a species of *Cremastus* which had been bred from *Phoxopteris comptana.* I was at first disposed to refer them to *C. piceus*, Cresson, (Trans. Am. Ent. Soc., Vol. IV, p. 176), but on sending a specimen to Mr. Cresson for comparison with the type, was kindly informed that it differed materially from this species, and in fact from everything else in the collection of the American Entomological Society. I had seen the Michigan species and from my recollection of it together with the above description, surmised that it was the same as ours, and on comparing a specimen, kindly submitted to me by Prof. Cook, found my surmise to be correct.

Besides this *Cremastus* we have bred from *P. comptana* a single specimen of a very well marked species of *Glypta* which is also apparently undescribed. The first mentioned species is described below under the name *Cremastus cookii*, the specific name being given in honor of the gentleman who first called attention to the insect; and the second is treated of as *Glypta phoxopteridis*, being so called because of the insect it infests.

Cremastus cookii, sp. n.

The North American species of *Cremastus* have as yet received little attention. Eight species are recognized by Cresson in his Synopsis of the Hymenoptera (pp. 204, 328), five of which were described by Provancher from field specimens; two by Mr. Cresson; one (*C. retiniæ*) having been bred from *Retinia rigidana*, Fernald, and the other (*C. piceus*) collected in the field; and one (*C. forbesi*) by myself, it having been bred from *Teras minuta*, Robinson. Hence it appears that but two of the eight American species now known have had their hosts recorded.

A lot of leaf-roller larvæ were collected on blackberry at Anna, Ill., June 6, 1884. Transferred to breeding cages at Normal three of the parasites emerged June 28, two more July 1, and one more July 3. The moths (*P. comptana*) began emerging June 21 and continued to appear until July 1. Both sexes of the parasites were represented.

Another lot of the same Tortricid collected on raspberry at the same time and place yielded two specimens (♂♂) of the parasite, differing somewhat in the color of the face from the others, which are treated of below as variety *rufus*.

From larvæ of this leaf-roller collected on strawberry at Villa Ridge, April 4, 1883, a ♂ *Cremastus* was bred April 21, and a ♀ of the same species appeared May 5. Another specimen was bred in August, 1883, from *Phoxopteris* larvæ taken at Anna.

Besides these bred specimens this parasite has been taken by sweeping in strawberry fields at Normal during May and June, 1883; and at Urbana during July, 1885.

Description.—The imago may be described as follows:

Length 6 to 7 mm. ♀. Black; clypeus, mandibles, maxillæ, palpi and upper two-thirds of eye-orbits, yellow. Antennæ almost as long as body, piceous, yellowish brown beneath near base. Face punctate. Metathorax, including scutellum, shining, punctate. Metathorax with the elevated lines well developed, and posterior portion of central dorsal area transversely aciculate, while anterior portion of same area, and the greater portion of the other areas, rather coarsely punctate. Posterior margins of abdominal terga, behind the second, sometimes brownish. Ventrum of abdomen yellowish. Ovipositor $^2/_3$ as long as abdomen. Anterior and middle legs including coxæ, light yellow, with tarsi dusky. Posterior legs dull yellowish red, with coxæ, except at tip, and basal portion of trochanters black, and tarsi dusky. Tegulæ and base of veins whitish yellow; rest of veins, and stigma, except whitish spot at base, pale brown.

Described from many specimens bred in Illinois from *Phoxopteris comptana*; and one specimen bred by Prof. A. J. Cook from the same Tortricid in Michigan.

The male differs from the female in having the entire face below the insertion of the antennæ and a line below a spot in front of the tegulæ yellow, and another yellow patch which varies much in size (being sometimes wanting) on each side of the front of the mesonotum.

In a well marked variety of the male of the male, of which we have bred two specimens, the face, eye-orbits and under surface of scape are distinctly reddish, almost approaching vermillion. It may be called variety *rufus*.

Glypta phoxopteridis, sp. n.

From a number of larvæ of *P. comptana* collected on blackberry at Anna, July 14, 1884, there was bred early in August a single specimen of an apparently undescribed species of *Glypta* for which I propose the above name. The species is so well marked, and is of such economic interest in this connection, that I describe it now, notwithstanding my belief that the fewer are the descriptions that are drawn up from single specimens of parasitic Hymenoptera, the better will it be for Science.

Length 7 mm. ♀. Black, varied with white; face except space beneath antennæ, broad eye-orbits, clypeus, mandibles except teeth, palpi, ventrum and sides of thorax, tegulæ and wide line running forward, scutellum, post scutellum, lateral and posterior margins of metanotum with space on meson reaching two-thirds the way to the anterior margin, basal and apical margins of abdominal terga, with vent-

rum of abdomen, white. Legs yellowish red, with coxæ and trochanters of anterior and middle pairs, whitish, as are the posterior tarsi, except the basal half of first joint which is dusky. Wings hyaline, irridescent; nervures and stigma dark brown. Ovipositor as long as abdomen.

The antennæ are broken off of the only specimen at hand, so I am unable to describe them now.

Described from one specimen bred from *Phoxopteris comptana*, Fröl., August, 1884.

Herbert Osborn presented a paper on the "Food Habits of the *Thripidæ*."*

Mr. Smith remarked that he considered the habits of the group as very important economically and hoped additional information could be stated here.

Mr. Howard mentioned the supposed occurence in Europe, in Phylloxera Galls, of the species called *Thrips phylloxeræ* by Prof. Riley.

Mr. Webster stated that he had kept a species of *Thrips* for several weeks on wheat without other nutriment.

Mr. Fletcher mentioned the injury done on exhausted meadow lands in Canada to June Grass (*Poa pratensis*) and to Timothy (*Phleum pratense*) which was apparently due to *Thrips*.

Mr. Howard had seen the species mentioned by Prof. Comstock and had known cases where every stalk of grass showing injury would be found on examination to contain *Thrips*.

Mr. Smith said he had observed *Thripidæ* in galls but had not conconsidered them as the authors of the galls or as feeding upon the larvæ.

Mr. Smith asked Mr. Westcott for information concerning Illinois collections.

Mr. Westcott remarked that there were a few good collections in Illinois and invited the President and others to examine them in person.

Mr. Smith remarked upon the collection of Mr. Bruce, especially commending the rich series in certain species which were represented by such number of specimens that the lines of variation could be very clearly followed.

Adjourned to meet the following morning.

Friday Morning.—Club met at nine o'clock, and the reading of the minutes having been deferred, the Club listened to a paper by Mr. D. S. Kellicott on *Hepialus argentiomaculata*.

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* To be published in INSECT LIFE.